

REMARKS

Claims 36-53 are currently pending. Independent claims 36 and 43 are as previously presented. New independent claims 45 and 52 are added to cover the aligned optics feature of the present invention. Support for the new claims can be found, for example, at paragraphs [0031-0032] of the specification and Figures 1 and 2B. A terminal disclaimer is also refiled with a corporate authorization to address Examiner's obviousness-type double-patenting rejection over U.S. Pat. No. 6,677,151. Reconsideration of the pending claims is requested.

I. Response Under 35 U.S.C. §103 and Traverse

The Examiner rejected claims dependent on claims 36 and 43 as being obvious in light of Pfof et al. (U.S. Pat. No. 5,496,517, hereinafter "Pfof") or Yamamoto et al. (U.S. Pat. No. 5,102,623, hereinafter "Yamamoto") in view of Woudenberg et al. (U.S. Pat. No. 5,928,907, hereinafter "Woudenberg"). (OA pages 3-5, #5). Applicant would like to bring to the Examiner's attention that these references cannot render such independent claims 36 and 43 or their dependent claims obvious because they fail to meet the prima facie case of obviousness.

The PTO has the burden of establishing a prima facie case of obviousness. MPEP 2142.

"To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combines) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure." (indentation and underline added for emphasis) MPEP 2142.

None of the references cited nor the knowledge generally available to one of ordinary skill in the art provide motivation to modify or combine the references teachings to provides the features of the claimed invention.

Neither Pfof, nor Yamamoto, nor Woudenberg teach an independently translatable sample block assembly and independently translatable sample well tray holder that position a sample well tray with nucleic acid amplification samples into alignment with the sample block assembly and the optical detection system. At best, Pfof and Yamamoto teach translatable heating systems for biological samples and Woudenberg teaches an optical detection system for nucleic acid amplification. By not teaching this entire feature, the combination of these references fail the third prong of the prima facie case of obviousness.

Further, there is no motivation or suggestion to combine these references. Pfof and Yamamoto do not teach an optical detection system. More importantly for the motivation prong, Pfof and Yamamoto do not teach biological samples that require optical observation during heating as do nucleic amplification samples under-going thermal cycling during real-time PCR. Instead these two references teach incubation (heating and/or cooling to achieve result) thereby giving no motivation to combine their teachings with an optical detection system. Woudenberg does not teach an independently translatable sample block assembly and provides no motivation to modify the sample block to become translatable. One skilled in the art would not be motivated to modify Woudenberg with a translatable sample block assembly because the fiber optics of the optical detection system taught in Woudenberg provides a means for opening the lid to position the sample well tray on a stationary sample block assembly. By not providing motivation, the combination of these references fails the first prong of the prima facie case of obviousness.

Finally, there is no reasonable expectation of success in combining Pfof or Yamamoto with Woudenberg. Optics require fine tuned alignment for an optical detection system to operate. Pfof and Yamamoto teach mechanical means for moving heating surfaces. Heating surfaces do not require fine tuned alignment. Hence, a teaching of a movable heating surfaces does not provide a reasonable expectation of success that the movable heating surface could be moved with precision required by an optical detection system as featured in the present invention in the alignment of the nucleic acid amplification samples with the optical detection system. By

not providing a reasonable expectation of success, the combination of these references fails the second prong of the prima facie case of obviousness.

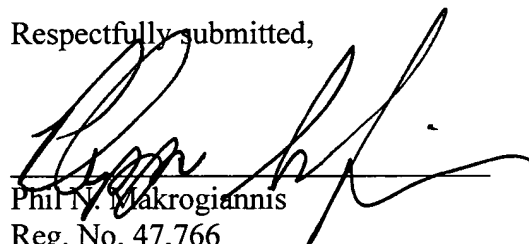
Based on the arguments above traversing the prima facie case of obviousness, reconsideration of the pending claims is requested.

Fee Authorization

Should any extension of time and/or fee be necessary for timely submission of this paper, such extension of time is hereby requested, and the Commissioner is hereby authorized to charge **Deposit Account No. 01-2213 (order no. 4696C1)**. Any deficiency or overpayment should be charged or credited to this deposit account.

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Respectfully submitted,



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